UNITED STATES PATENT AND TRADEMARK OFFICE

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/541,902	04/03/2000	Kenji Mori	Q58624	5026

7590 02/13/2004	EXAMINER
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	ART UNIT	PAPER NUMBER
Washington, DC 20037-3202	2626	

DATE MAILED: 02/13/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

PTO-90C (Rev. 10/03)

Office Action Summary	Application No.	Applicant(s)
	09/541,902	MORI, KENJI
	Examiner	Art Unit
	Madeleine AV Nguyen	2626

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE _3_ MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.
- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1) ☐ Responsive to communication(s) filed on _____ .
2a) ☐ This action is **FINAL**.   2b) ☒ This action is non-final.
3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4) ☒ Claim(s) _1-14_ is/are pending in the application.
    4a) Of the above claim(s) _____ is/are withdrawn from consideration.
5) ☐ Claim(s) _____ is/are allowed.
6) ☒ Claim(s) _1-14_ is/are rejected.
7) ☐ Claim(s) _____ is/are objected to.
8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9) ☐ The specification is objected to by the Examiner.
10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
    Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
    Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
    a) ☒ All   b) ☐ Some *   c) ☐ None of:
      1. ☒ Certified copies of the priority documents have been received.
      2. ☐ Certified copies of the priority documents have been received in Application No. _____ .
      3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
    * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☒ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) Paper No(s)/Mail Date _6, 7_.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____ .
5) ☐ Notice of Informal Patent Application (PTO-152)
6) ☐ Other: _____ .

DETAILED ACTION

Claim Objections

1.   Claims 2, 10, 14 are objected to because of the following informalities: "it" after

convertes should be –them—since an image has a plurality of image data. Appropriate

correction is required.

Claim Rejections - 35 USC § 112

2.   Claims 1, 8, 11 recite the limitation "said first or second color space" in line 3. There is

insufficient antecedent basis for this limitation in the claims.

3.   Claims 2, 8, 9, 11 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite

for failing to particularly point out and distinctly claim the subject matter which applicant

regards as the invention. The term "for" before number of colors is vague since question is

raised whether it is "for a number of colors" or "four number of colors" (claims 2, 8, 9). The

same with claim 11, "at least number of colors" is whether "for a number of colors" or "four

number of colors".

Claim Rejections - 35 USC § 103

4.   The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all

obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in
> section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are
> such that the subject matter as a whole would have been obvious at the time the invention was made to a person
> having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the
> manner in which the invention was made.

5.   Claims 1-14 are rejected under 35 U.S.C. 103(a) as being unpatentable over Anabuki et al

(US Patent No. 6,441,913) in view of Smith et al (US Patent No. 5,999,710).

Concerning claims 1-14, Anabuki et al discloses an image processor (Figs.1) for printing

comprising an expander (4) for expanding supplied compressed image data every color in a first

(RGB) or second (YMCK) color space; image data supply means (5, 6) for reading the expanded

image data in parallel thereby converting the expanded image data in RGB color space to

expanded image data in YMCK color space and not converting the expanded image data in

YMCK color space; a print engine (9) for receiving the expanded image data in the YMC color

space for printing color image data in YMCK color space (col. 4, lines 4-32; col. 6, line 49 – col.

7, line 38; col. 8, lines 9-24; col. 14, lines 39-46; col. 16, lines 28-38;).

Anabuki et al fails to teach a memory for storing the expanded image data in RGB or

YMCK color space. However, it was a matter of well known in the prior art that a memory is

included in an expanding device to stored the expanded image data. Smith et al supports that

well known in the prior art by teaching a decompressing device (126, 127, Fig.5) having a buffer

for storing expanded image data (col. 25, lines 18-30) and a memory (129, Fig.5) for storing the

expanded image data before they are sent to the color space converter 125 (col. 28, lines 52-56).

It would have been obvious to one skilled in the art at the time the invention was made to include

a memory for storing the expanded image data in the expanding portion 4 of the system in

Anabuki et al as taught in Smith, since Anabuki also teaches that the expanding portion 4 is for

expanding the input image data, if it is compressed, into original image data (col. 4, lines 4-18);

thus, Anabuki indirectly teaches that the expanding portion 4 can expand compressed data or

stored non-compressed data (original image data).

Concerning claims 6, Anabuki et al further teaches that the image data in RGB color space includes 4 types of data having the image data of at least red, green and blue and color conversion attribute; and image data in YMCK color space includes four types of data of at least cyan, magenta, yellow and black (col. 8, lines 9-24; col. 9, lines 63-66; col. 11, lines 42-45).

Concerning claims 13-14, Anabuki et al further teaches a compressed image memory (1) provided before the expanding unit for storing compressed image data in RGB color space; the print engine is for printing image data of plural colors (col. 8, lines 9-24; col. 9, lines 63-66; col. 11, lines 42-45).

Conclusion

6.   The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

a. Terashima et al (US Patent No. 6,538,762) discloses a printing system with a printer control only circuit which converts full color RGB raster data into binary CMYK raster data.

b. Ohnishi (US Patent No. 6,067,169) teaches a color image process system which can discriminate the type of input image data and a controller for controlling the output device in accordance with the discrimination.

7.   Any inquiry concerning this communication or earlier communications from the examiner should be directed to Madeleine AV Nguyen whose telephone number is 703 305-4860. The examiner can normally be reached on Monday, Tuesday and Thursday from 9:30am to 6:00pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's

supervisor, Kimberly Williams can be reached on 703 305-4863. The fax phone number for the

organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent

Application Information Retrieval (PAIR) system. Status information for published applications

may be obtained from either Private PAIR or Public PAIR. Status information for unpublished

applications is available through Private PAIR only. For more information about the PAIR

system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR

system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Madeleine AV Nguyen
Primary Examiner
Art Unit 2622

February 04, 2004